



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
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San Francisco, CA 94105

APR 24 2001

John Withers, Chair

✓ Gerald J. Thibeault, Executive Officer
Santa Ana Regional Water Quality Control Board
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Riverside, CA 92501-3339

Dear Messrs. Withers and Thibeault:

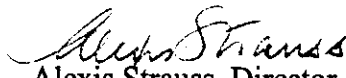
I am please to provide you with the final report of EPA Region 9's review of the Santa Ana Regional Water Quality Control Board's National Pollution Discharge Elimination System (NPDES) program, conducted on April 24-25, 2000. This is the fourth such review we have completed in the past two years in California and is part of our ongoing effort to review all of the state NPDES programs in our region after several years of not having performed such reviews. These reviews are also intended to respond to national concerns about the quality of state-administered NPDES programs raised by EPA's Office of Inspector General, and to respond to Office of Management and Budget concerns about backlogs of expired NPDES permits around the country.

Our review of the Santa Ana Board's NPDES program considered EPA regulatory and policy requirements, and applicable written agreements between EPA and the State of California. EPA's review encompassed six main NPDES activities: permitting, compliance, pretreatment, storm water, animal feeding operations, and enforcement, over the time period from 1996 to April 2000. The enclosed report includes commentary regarding the strengths of the Santa Ana Board's administration of the NPDES program, discussion of issues arising State-wide at all Regional Boards, changes that are required at the Santa Ana Board, and other suggestions that EPA offers for the Santa Ana Board's consideration. A summary of the strengths and required changes is included at the beginning of the report. Based on this review, once the required changes are made, EPA believes that the San Ana Board will be administering an NPDES program that meets all applicable requirements, though limited by available resources.

At the time that our on-site review was conducted, new State funding was allowing the the Santa Ana Board to begin putting in place significant increases in staffing for its NPDES programs, most notably in the storm water and animal feeding operations program areas. These changes should go along way to address a number of concerns raised by the review. For example, we are aware that the Board has recently made significant increases in its inspection and enforcement activities in these two program areas.

Please feel free to call me at (415) 744-1860 or Tom Huetteman at (415) 744-1905 if you wish to discuss this review in more detail. We sincerely appreciate the participation and cooperation of you and your staff, as well as that of the State Water Resources Control Board, in our shared endeavor to better manage water resources in California.

Sincerely,


Alexis Strauss, Director
Water Division

Enclosure

cc: Ed Anton, SWRCB
John Norton, SWRCB

**NPDES PROGRAM IMPLEMENTATION REVIEW
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD 8
SANTA ANA REGION**

FINAL REPORT 4/16/01



**U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 9**

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INTRODUCTION

On April 24-25, 2000, the U.S. Environmental Protection Agency, Region 9 (EPA) conducted a review of the approved National Pollution Discharge Elimination System (NPDES) program at the Santa Ana Regional Water Quality Control Board (RB8). The review was conducted by EPA to assess RB8's implementation of the NPDES program in accordance with Federal laws, regulations, and policies, as agreed upon by EPA and California, and described in the following documents:

1. NPDES Memorandum of Agreement (MOA) between the U.S. Environmental Protection Agency and the California State Water Resources Control Board (September 1989), and
2. Final FY 1996/1997, 1997/1998, and 1998/1999 Section 106 Workplans.

The EPA review focused on six main NPDES activities: permitting, compliance, pretreatment, storm water, animal feeding operations, and enforcement, and generally covered the time period from 1996 to 2000. EPA conducted its review by evaluating 5 of RB8's 89 individual NPDES permits, as well as program files, documents, quarterly and other reports, and by conducting interviews of RB8 program managers and staff. The EPA evaluation of RB8's NPDES program took place both at EPA's San Francisco office (document review) and at RB8's office in Riverside. This report presents the results of EPA's review.

OVERVIEW

STATE-WIDE NPDES PROGRAM NEEDS

As a result of EPA's review of NPDES programs at other Regional Boards, a list of state-wide issues was developed to facilitate a state-wide resolution (see Appendix A). From that list, the following issues were identified as concerns at RB8:

All RWQCBs need to ensure that permit fact sheets/statements of basis include clearly establish that permits are consistent with applicable statutes, regulations, and policy (e.g., technology-based guidelines, reasonable potential, antibacksliding, etc.). Complete documentation of technology based effluent limits and Water Quality Based Effluent Limits (WQBELs) for chemicals and whole effluent toxicity is needed (e.g., WQBELs for hardness adjusted metals using site-specific translators, etc.). Recent State Board training and the State's SIP will help address this concern.

The receiving water limitations language for MS4 permits which was adopted by the State Board in June 1999 must be included in future reissued MS4 permits.

A greater inspection presence in the storm water program for both industrial and construction sites needs to be established.

Penalty actions need to follow EPA and State policies which call for recovery of economic benefit resulting from noncompliance.

PERMITS

Overall, RB8 maintains a strong and effective permits program. Permits are expedited using standardized key permit conditions (e.g., whole effluent toxicity, quality assurance, compliance determination, etc.). Federal technology-based requirements are generally correctly followed in RB8's development of permits. RB8 is also establishing water quality based effluent limitations (WQBELs) for chemicals and whole effluent toxicity in NPDES permits when a discharge causes, or has the reasonable potential to cause or contribute to an exceedance of narrative or numeric water quality objectives. In the cases when numeric water quality criteria/objectives for toxic chemicals are lacking, RB8 is using the Basin Plan narrative toxicity objective in conjunction with protective numeric criteria for toxic chemicals (e.g., EPA's 304(a) criteria, etc.) to establish WQBELs which ensure protection of beneficial uses. In the area of storm water, RB8 has taken the positive step of issuing a watershed-wide construction storm water permit for the San Jacinto Watershed to address impaired water bodies in the watershed. RB8 also has the State's strongest general permit for animal feeding operations.

In addition to the needed State-wide permitting change mentioned above, RB8 needs to eliminate the backlog of expired NPDES permits by June 2001 in accordance with Section 106 workplan commitments. Also, RB8 needs to ensure that major modifications to permits are public noticed and subject to appeal procedures, and unless applications for permit renewals are submitted on time and are complete, RB8 must not administratively extend expiring permits. Both of these two issues may also be of State-wide concern. In the area of MS4 permits, reissued MS4 permits must address whether additional controls are necessary for exfiltration from the sanitary sewer system into the MS4. EPA suggests that RB8 update procedures to ensure consistent implementation of the narrative toxicity objective when establishing WQBELs for acute toxicity, and that, during the period prior to adoption and implementation of TMDLs for 303(d) listed waters, RB8 should develop a permitting process which ensures consistent establishment of WQBELs for discharges found to contain pollutants causing or contributing to non-attainment in a 303(d) listed receiving water body. Any such 303(d) permitting process for priority toxic pollutants developed by RB8 should include implementation procedures for priority toxic pollutants contained in the State's *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP), 2000. EPA also suggests that when MS4 permits are reissued they should include requirements to address failing septic systems as a potential source of pollutants, and consideration should be given to adding numeric requirements for the number of industrial storm water inspections which must be conducted by MS4 permittees.

COMPLIANCE

In general, RB8 has a good overall NPDES compliance program for municipal and industrial wastewater dischargers. Discharge monitoring reports (DMRs) are adequately reviewed and violations are tracked on an in-house data base. Inspection procedures and reports are thorough, and sampling inspections are conducted on more than half of the major facility inspections and at many

of the minor facilities. RB8 exceeds the national performance standard for inspection coverage of minor permittees, but has consistently not met the national performance standard of 100% for inspection coverage of major permittees. EPA suggests that inspection reports be sent to the facilities inspected.

PRETREATMENT

In RB8, oversight of the municipal pretreatment programs is handled by one Unit manager and one staff person. Twenty approved pretreatment programs were present in RB8 until this review found that 10 of them should no longer be considered as separately approved pretreatment programs, but should rather be treated as subsidiaries of the 10 formally approved municipal pretreatment programs. This reduction will help to address the consistent inability of RB8 to perform the required annual pretreatment compliance inspection (PCI) at each approved program and the pretreatment compliance audits (PCAs) which are required every five years. RB8's average PCI coverage has been 25% of the 20 approved programs. Unlike other parts of the State, RB8 does not currently have any categorical industrial users that are outside of approved pretreatment programs, which would require RB8 to directly regulate them. RB8 should conduct periodic reviews to make sure this situation does not change.

One area requiring RB8's attention when the Orange County Sanitation District permit is reissued is the proper regulation of industries discharging to the Santa Ana Watershed Project Authority (SAWPA) brine line. In addition, RB8's annual compliance inspections of the ten approved pretreatment programs needs to include evaluations of the adequacy of pretreatment program implementation in the "subsidiary cities," ensuring that the "umbrella pretreatment programs" either directly implement or provide adequate oversight of pretreatment programs throughout their service areas.

STORM WATER

In the past, RB8 has had insufficient staff to fully implement their storm water compliance and enforcement program. Past efforts have focused on ensuring compliance with annual report submittals and inspecting sites for notice of termination from permit coverage; the latter, however, does not assess the effectiveness of best management practices (BMPs) used to control storm water pollution. Only recently have enforcement activities by RB8 addressed inadequate BMPs, although noncompliance rates are known to be high among certain sectors. RB8 has initiated a good program of auditing MS4 permittees, but has fallen short in maintaining their targeted audit frequency.

New resources at RB8 will allow staffing in the storm water program to grow to 18 staff this fiscal year, up from only a couple of staff at the start of last year. With new staff, dramatic changes can be made to address the past deficiencies in RB8's storm water program, most notably the lack of compliance inspections and appropriate enforcement actions to address inadequate BMPs and Storm Water Pollution Prevention Plans (SWPPPs). Inspection check lists should be developed for key sectors, and on-site Notices-to-Comply should be used. Because of the large number of general storm water permittees, EPA encourages RB8 to establish geographic and/or industry sector

priorities to help focus compliance and enforcement efforts.

ANIMAL FEEDING OPERATIONS (AFOs)

To address the significant surface water and groundwater impacts that have resulted from dairies in the Chino Basin, RB8 recently took two important steps. In 1999, RB8 issued a new general permit for dairies (Order No. 99-11) which imposes more stringent requirements on dairies including development of Engineered Waste Management Plans (EWMPs) and the prohibition on manure disposal. This year, new resources became available to significantly add to staffing devoted to dairy work and allow a new Dairies/Chino Basin Unit. In the short term, RB8 will focus on necessary steps to ensure that each dairy is complying with the general permit, including development of EWMP guidance (near completion) and review of EWMPs and manure hauling manifests, along with increased compliance evaluation inspections and enforcement. In the long term, RB8 plans to continue participation in the Chino Basin Watershed Initiative, working to take steps to restore the quality of surface water and groundwater in the Santa Ana Watershed.

Among the changes that RB8 will need to make to more effectively address water quality problems from dairies is an increase in compliance inspections, especially during the rainy season, and development of stronger enforcement. Since 1997, RB8 has issued five Administrative Civil Liability Complaints (ACLCs) against dairies, limiting enforcement to only a few of the most egregious violators and generally collecting low penalty amounts. This is an insufficient number of enforcement actions given the pattern of noncompliance RB8 staff have observed. EPA also suggests that inspection reports include an expanded narrative section to document and convey the results of the inspection, and that copies be sent to the inspected facilities. A checklist for inspections should be developed.

ENFORCEMENT

Between 1997 and April 2000, RB8 has issued 62 ACLCs, 48 of these for failure to submit annual reports required by storm water permits. In addition, RB8 has finally brought most of their major municipal treatment plants into compliance with the total inorganic nitrogen (TIN) and total dissolved solids (TDS) limits. However, in numerous instances, RB8 did not take timely action against significant violators, did not escalate enforcement against recalcitrant violators, and inappropriately extended compliance order deadlines for recalcitrant violators. Finally, RB8's penalty calculations do not follow State procedures and policies in calculating and collecting penalties, and RB8 commonly suspends large portions of their assessed penalties in exchange for commitments from the violators to take steps necessary to achieve compliance, which is contrary to policy requirements. Penalties should only be suspended based on a violator's inability to pay or in exchange for supplemental environmental projects (SEPs) which go beyond what is required for compliance. SEPs should not reduce the penalty below the economic benefit realized by the violator.

Permit Reissuance and Inspection Summaries

NPDES Permit Reissuances ¹ -- Five Year Permit Cycle						
Permit Type	FY96	FY97	FY98	FY99	FY00	5yr Total
Majors (17 total)	3	2	2	2	3	12/17 (70%)
Minors (43 total)	4	5	12	7	8	36/43 (84%)
Total (60 total)	7	7	14	9	11	48/60 (80%)

Number and Percentage of Annual Inspections ²			
	July '96 - June '97	July '97 - June '98	July '98 - June '99
Majors (17 facilities)	10 (59%)	13 (76%)	13 (76%)
Minors (43 facilities)	22 (51%)	23 (53%)	32 (74%)
Pretreatment (20 programs ³)	4 (20%)	6 (33%)	5 (25%)

¹NPDES Permits are scheduled to be reissued every 5 years; to meet this standard, RB8 must reissue on average 3-4 major permits per year and 8-9 minor permits per year.

²Work plan commitments call for annual inspection frequencies of 100% for major facilities and 20% for minor facilities; pretreatment inspection commitments for the past three years were 5, 6 and 6 pretreatment compliance inspections.

³Since the program review, EPA and RB8 have agreed to adjust the inventory of formally approved pretreatment programs to 10 by dropping smaller city programs that are connected to a larger POTW with a pretreatment program.

NPDES PERMITS

EPA Evaluation Procedures

EPA's NPDES permit review consisted of four parts:

1. An in-depth review of a subset of RB8-issued permits and a spot check of other individual permits to verify that permits are written in accordance with applicable law, regulations, and policy;
2. a review of the Memorandum of Agreement (MOA) to ensure that requirements are followed and that the MOA accurately reflects the needs of California's approved NPDES program;
3. an on-site review of RB8's permit files to determine that administrative records are complete and contain required information; and
4. a general review of overall program effectiveness in terms of permit backlog, staffing, training, etc.

EPA selected five permits representing different discharge categories for in-depth review. Except for the Orange County municipal separate storm sewer system (MS4) permit which was issued in 1996 (NPDES permit No. CAS618030), the permits selected for in-depth review were draft major and minor permits⁴ under consideration for adoption by the Board. These draft permits reflect current technology and water quality based permitting practices of RB8.

Current Workload and Staffing

Under the State's Watershed Management Initiative (WMI), RB8 has established eight watershed management areas and identified high priority watersheds for focusing staff resources. To better address priority issues and meet watershed-specific needs, NPDES permitting has been integrated into RB8's WMI process where both individual and general permits are scheduled for reissuance in accordance with a five-year plan. As of June 31, 2000, RB8 had a 35% backlog of major NPDES permits that had expired and not been reissued (6 out of 17), and a 7% backlog of minor NPDES permits (6 out of 43). The backlog of expired permits is expected to be addressed if current plans for reissuance are met by RB8. In RB8's Regulations Unit and Storm Water Unit, ten staff⁵ and two supervisors are responsible for the issuance of all NPDES permits, encompassing the following:

⁴ Major municipal publicly owned treatment works discharges have a design flow greater than one million gallons (MGD) per day or an EPA/State-approved industrial pretreatment program. Major industrial discharges are determined based on specific ratings criteria that have been developed by EPA and the State. Minor discharges are all remaining discharges.

⁵ In April 2000, there were two vacancies in the Storm Water Unit.

NPDES Permits (as of April 2000)	Workload
Individual NPDES Permits:	
Major	17
Minor	43
Individual Storm Water	25
Municipal Separate Storm Sewer Systems (MS4)	4
TOTAL	71
General NPDES Permits ⁶ :	
• General Waste Discharge Requirements for concentrated animal feeding operations (dairies and related facilities) within the Santa Ana Region, NPDES Permit No. CAG018001, RWQCB Order No. 99-11 (233 enrolled)	
• General Waste Discharge Requirements for discharges to surface waters which pose an insignificant (de minimus) threat to water quality, CAG998001, RWQCB Order No. 98-67 (83 enrolled)	
• General groundwater cleanup permit for discharges of extracted and treated groundwater resulting from the cleanup of groundwater polluted by petroleum hydrocarbons and/or solvents, NPDES Permit No. CAG918001, RWQCB Order No. 96-18 (123 enrolled)	
• General Waste Discharge Requirements for the discharge of storm water and wastes associated with boatyard operations and other related wastes to Lower Newport Bay and Huntington Harbor, Orange County, NPDES Permit No. CA8000314, RWQCB Order No. 94-26 (7 enrolled)	
• TOTAL	4

Individual Permits Evaluation

The primary mechanism for controlling discharges of pollutants to receiving waters are effluent limits. Under the NPDES program, effluent limits are developed based on applicable technology (i.e., secondary treatment standards, effluent limitations guidelines and performance standards, and best professional judgement) and water quality standards. After technology-based effluent limits are applied, if the permitting authority determines that a discharge has the reasonable potential to cause or contribute to the exceedance of a water quality standard, then a water quality based effluent limit (WQBEL) must be included in the permit.

Application of Technology-Based Requirements

One category of dischargers requiring individual permits is municipal publicly owned treatment works (POTWs). EPA has developed national secondary treatment standards which are defined in terms of five-day biochemical oxygen demand (BOD₅), suspended solids (SS), and pH. EPA has also developed national effluent limitations guidelines and performance standards for different industrial categories of dischargers; these control measures are developed based on the

⁶The State Board also issues the Industrial and Construction Activities General Permits, NPDES Nos. CAS000001 & CAS000002, respectively that cover these activities in RB8..

degree of pollutant reduction attainable by an industrial category through the application of control technologies, irrespective of facility location.

The POTW permits reviewed in-depth by EPA⁷ all contained treatment standards more stringent than EPA's national secondary treatment standards. In the Santa Ana Region, all POTWs are required to meet tertiary or equivalent treatment standards except for Orange County Sanitation District, which has a CWA 301(h) waiver from secondary treatment. These permits also contained applicable pretreatment and sewage sludge conditions consistent with federal regulations. One of the industrial permits reviewed in-depth by EPA⁸ did not include all technology-based effluent limits required by applicable effluent limitations guidelines (i.e., effluent limits based on "No detectable amount", etc., for Riverside Canal Power Company). These omissions were communicated to RB8 staff during the program review and, subsequently, corrections are being made prior to final permit issuance.

Implementation of Water Quality Standards

After technology-based effluent limits are applied, if the permitting authority determines that a discharge has reasonable potential to cause or contribute to the exceedance of a water quality standard, then a WQBEL must be included in the permit. EPA requires permitting authorities to use chemical-specific and toxicity criteria (or objectives) in a State's water quality standards as the basis to:

1. analyze a NPDES effluent;
2. decide what pollutant parameters measured in an effluent need limits; and
3. derive WQBELs to ensure that water quality standards in the receiving water body are achieved.

Once applicable water quality standards for a water body are identified, the permitting authority must determine whether a discharge causes, and/or has the reasonable potential to cause or contribute to an excursion above numeric/narrative water quality criteria/objectives, as required by 40 CFR 122.44(d). At a minimum, the permitting authority must make this determination at each permit reissuance and establish WQBELs to control the discharge of pollutants which cause, and/or have the reasonable potential to cause or contribute to an excursion above numeric/narrative water quality criteria/objectives. As discussed in the following paragraphs, based on this review, EPA believes

⁷ *Municipal permits reviewed:* City of Colton Municipal Wastewater Treatment Facility, CA0105236/Order No. 99-19, public notice draft permit transmitted on January 27, 1999 (POTW); Colton/San Bernardino Regional Tertiary Treatment and Water Reclamation Authority, Regional Tertiary Treatment Rapid Infiltration and Extraction Facility, CA8000304/Order No. 99-17, public notice draft permit transmitted on January 27, 1999 (POTW); and Orange County MS4 permit, CAS618030.

⁸ *Industrial permits:* Riverside Canal Power Company, Highgrove Generating Station, CA0001555/Order No. 00-04, public notice draft permit transmitted on April 12, 2000; and Rohr, Inc., Groundwater Cleanup, Arlington Facility, CA8000101/Order No. 00-40, public notice draft permit transmitted on March 28, 2000.

that only on occasion do water quality based permitting irregularities occur in RB8-issued permits, and that proper implementation procedures for water quality protection are routinely followed.

Chemical-specific Criteria (or Objectives)

In all permits reviewed or spot checked, EPA concluded that RB8 procedures for implementing WQBELs in permits are generally being followed. Reasonable potential analyses are being conducted in a manner consistent with EPA's recommended procedure in Chapter 3 of the revised *Technical Support Document for Water Quality-based Toxics Control (TSD; EPA/505/2-90-001, 1991)*, and WQBELs are based on protective water quality criteria/objectives. WQBELs derived from narrative water quality objectives are developed, as needed.

While EPA's metals policy (October 1, 1993) specifies that water quality criteria for metals are to be expressed in the "dissolved" form, 40 CFR 122.45(c) requires that total recoverable effluent limits for metals⁹ be developed for the purpose of NPDES permits. This poses the need to "translate" between "dissolved" and "total recoverable" metal forms. EPA notes that RB8 utilizes a permitting approach which requires compliance with WQBELs for metals in the "total recoverable" form. Where site-specific "translators" have not been developed, EPA currently recommends using criteria conversion factors as default translators, rather than 1. This recommendation is followed by RB8. Guidance for developing site-specific translators is found in *The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion* (EPA 823-B-96-007, 1996). In conjunction, for freshwater metals criteria which are "hardness" dependent (i.e., cadmium, chromium (III), copper, lead, nickel, silver, and zinc), adjustment factors should be calculated using the hardness of the receiving water, rather than the effluent.

Whole Effluent Toxicity

RB8 has streamlined its implementation of the whole effluent toxicity (WET) testing program by developing standardized permit conditions for WET testing and effluent limits which are in agreement with implementation procedures for the narrative whole effluent toxicity objective in the Basin Plan. This includes numeric WQBELs, "triggers" for conducting accelerated monitoring and toxicity reduction evaluations, and a toxicity reduction evaluation workplan

$$^9 \quad WLA_i = \frac{[C_i (Q_u + Q_e) - Q_u C_u]}{Q_e}, \text{ where}$$

WLA_i	=	total recoverable wasteload allocation (i.e., total recoverable effluent limit)
C	=	concentration
C_i	=	total recoverable instream concentration equal to the dissolved criterion (i.e., "dissolved" criterion \div translator)
Q	=	flow
u	=	upstream
e	=	effluent

requirement. To facilitate consistency with respect to effluent limits for acute toxicity in RB8-issued permits, EPA suggests that RB8 update its procedure for converting the narrative whole effluent toxicity objective into WQBELs for acute toxicity. A recommended procedure can be found in the revised *Technical Support Document* (TSD); correct examples of this procedure are given in *Regions 9 and 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs* (Denton and Narvaez, 1996).

Permitting Discharges to Impaired Water Bodies in the Absence of TMDLs

Section 303(d) of the Clean Water Act (CWA) requires that each state identify those waters for which existing technology-based pollution controls are not stringent enough to attain or maintain state water quality standards. For those waters, states are required to establish Total Maximum Daily Loads (TMDLs) according to a priority ranking. Currently, NPDES permitting authorities rely on the interpretation of applicable statutes, regulations, and case law to determine how WQBELs should be established for new and existing discharges found to contain pollutants causing or contributing to non-attainment of water quality standards. During the period prior to adoption and implementation of TMDLs for 303(d) listed waters, RB8 should develop a permitting process which ensures consistent establishment of WQBELs for discharges found to contain pollutants causing or contributing to non-attainment in a 303(d) listed receiving water body. Any such 303(d) permitting process for priority toxic pollutants developed by RB8 should include implementation procedures for priority toxic pollutants contained in the SIP.

Storm Water Permitting

Municipal Separate Storm Sewer System Permitting

The Orange County MS4 permit (No. CAS618030) covers the largest portion of the urbanized area in Orange County and was reissued by RB8 on March 8, 1996. This is RB8's most recently reissued MS4 permit. The permit was found to be generally consistent with applicable requirements and guidance. However, subsequent to the issuance of this permit, EPA determined that the receiving water limitations language in Part IV of the permit was not acceptable. This is due to the fact that the language unacceptably excuses exceedances of receiving water limitations if the permittee follows up with certain actions. In June 1999, the State Board adopted revised receiving water limitations language for MS4 permits which RB8 must use for the next reissuance of the permit.

Like most California MS4 permits, the Orange County permit requires that the permittee propose and implement a drainage area management plan (DAMP). Where necessary, the permit includes certain additional conditions to ensure that pollutants are controlled to the maximum extent practicable (MEP).

EPA's review of the Orange County permit and DAMP found that, with a few relatively minor exceptions, the permit should ensure compliance with MEP and other applicable requirements of the Clean Water Act. Although the DAMP and permit include a thorough program for addressing illicit connections, it is not clear the degree to which this program addresses exfiltration from the

sanitary sewer system into the MS4. Such a program is a requirement of NPDES regulations at 40 CFR 122.26(d)(2)(iv)(B)(7), and the next permit reissuance will need to more explicitly address this issue. Also, EPA's guidance manual for Part 2 MS4 permit applications (EPA 833-B-92-002) recommends that failing septic systems be considered as a potential source of pollutants. This issue should also be considered during the next permit reissuance. Both of these issues may be relevant to the problem of beach closures in Orange County.

The DAMP also provides for an industrial facility inspection and enforcement program, but neither the DAMP nor the permit provide specifics regarding the number of inspections to be conducted. During the reissuance of the permit, RB8 should consider requiring specific inspection frequencies in the permit to ensure that the combination of efforts by RB8 and the municipalities provide an adequate inspection and enforcement program for industrial facilities. This same issue has drawn recent attention in the Los Angeles Regional Board.

Industrial and Construction Storm Water Permitting

Like the rest of the State, the vast majority of the industrial and construction storm water discharges in RB8 are covered by the State-wide general storm water permits issued by the State Board. RB8 has also taken the initiative to issue a draft watershed-wide construction storm water permit for the San Jacinto Watershed. This permit will include more stringent requirements than the State-wide general permit and is more likely than the State-wide permit to correct the existing impairments in Lake Elsinore and Canyon Lake. RB8 is commended for this effort.

Animal Feeding Operations Permit

In 1999, RB8 reissued its general waste discharge requirements for concentrated animal feeding operations (dairies and related facilities) within the Santa Ana Region, NPDES Permit No. CAG018001, RWQCB Order No. 99-11. This newly reissued permit includes several important new requirements for addressing the historic contamination problems caused by dairies in the Chino Basin, including a requirement that all dairies develop and implement an Engineered Waste Management Plan (EWMP), a prohibition against manure disposal in the Santa Ana Region, stringent restrictions on the application of manure to crop lands in the region, and a requirement to remove manure from the corrals within 180 days.

Other Permitting Requirements

Permit Documentation

The fact sheet (or statement of basis) and supporting documentation serve as the primary basis for defending a permit in an administrative appeal and, ultimately, in the courts. Fact sheets/statements of basis prepared by RB8 provide detailed explanations for most permit requirements. However, permit fact sheets/statements of basis need to clearly document: (1) numerical calculations for developing technology effluent limits and WQBELs; and (2) whether appropriate antibacksliding requirements are met (see CWA Section 303(d) and 402(o), and 40 CFR

122.44(l)). Permit documentation has been identified by the SWRCB and EPA as a State-wide issue of concern. Recent State Board training and the State's SIP will help address this concern.

Standard Conditions

Standard conditions in 40 CFR 122.41 and 122.42 delineate the legal, administrative, and procedural requirements for all NPDES permits. The use of standard conditions helps ensure uniformity and consistency of all NPDES permits issued by EPA or authorized permitting authorities. In accordance with federal requirements, standard conditions must be incorporated into the permit either verbatim, or by specific reference to the regulations. The standard conditions incorporated into NPDES permits adopted by RB8 are not wholly consistent with CFR 122.41 and 122.42 and must be updated.

Permit Modification Procedures

In its review, EPA noted that permits contain provisions allowing modification of monitoring and reporting programs by the Executive Officer. Such modifications may result in less stringent permit conditions. Modifications resulting in less stringent permit conditions are major modifications, as defined by regulations at 40 CFR 122.62, and must be properly public noticed and subject to appeal procedures (see also the MOA). Improper modifications undermine permit enforceability. Therefore, EPA requires that all permit modifications be conducted in accordance with applicable regulations.

Administrative Extensions of Expiring Permits

EPA's in-depth review of individual permits found that several permits had been administratively extended, even though the permit application had been submitted less than 180 days prior to the permit expiration date. 40 CFR 122.21 requires that applications for permit renewals for existing discharges must be made at least 180 days prior to the expiration date of the existing permit. 40 CFR 122.6 states that a federally-issued expired permit remains in effect until the new permit is issued only as long as the application for permit renewal was submitted on time and is complete (per 40 CFR 122.21). It also specifies that state-issued permits may also be so extended if allowed by state law. Improper administrative extensions undermine permit enforceability. Therefore, EPA requires that all administrative extensions of expiring permits be conducted in accordance with applicable regulations.

Memorandum of Agreement

MOA requirements for public notice and public hearing are followed by RB8. EPA receives the necessary copies of permit applications, public-noticed draft permits, and issued permits discussed under the MOA.

CONCLUSIONS SUMMARY-PERMITS

Strengths

1. Federal technology-based requirements are generally correctly followed by RB8.
2. RB8 is establishing WQBELs for chemicals and whole effluent toxicity in NPDES permits when a discharge causes, and/or has the reasonable potential to cause or contribute to an exceedance of narrative or numeric water quality objectives (i.e., has "reasonable potential").
3. Where reasonable potential is established and numeric water quality criteria/objectives for toxic chemicals are lacking, RB8 is using the Basin Plan narrative toxicity objective in conjunction with protective numeric criteria for toxic chemicals (e.g., EPA's 304(a) criteria, etc.) to establish WQBELs which ensure protection of beneficial uses.
4. To expedite permit issuance, the NPDES permitting units have standardized many key permit conditions (e.g., whole effluent toxicity, quality assurance, compliance determination, etc.).
5. RB8 is to be commended for its efforts in issuing the watershed-wide construction storm water permit for the San Jacinto Watershed to address impaired water bodies in the watershed.
6. RB8 has developed an outstanding general permit for dairies.
7. RB8's permit files are orderly, current, and readily available for review.

Required Changes-State-wide Issues

1. The backlog of NPDES permits needs to be eliminated by the end of June 2001 in accordance with Section 106 workplan commitments and kept up to date thereafter.
2. All RWQCBs need to ensure that permit fact sheets/statements of basis clearly establish that permits are consistent with applicable statutes, regulations, and policy (e.g., technology-based guidelines, reasonable potential, antibacksliding, etc.). Overall, the quality of fact sheets/statements of basis developed by RB8 is quite high; however, complete documentation of technology based effluent limits and WQBELs for chemicals and whole effluent toxicity is needed (e.g., WQBELs for hardness adjusted metals using site-specific translators, etc.). Recent State Board training and the State's SIP will help address this concern.
3. The receiving water limitations language for MS4 permits which was adopted by the State Board in June 1999 must be included in future reissued MS4 permits.

Required Changes-RB8

1. In accordance with 40 CFR 122.62, RB8's major modifications to permits must be public noticed and subject to appeal procedures. This includes changes to permit monitoring programs which result in less stringent permit conditions. EPA notes that this issue may be of State-wide concern.
2. In accordance with 40 CFR 122.6 and analogous State law, unless applications for permit renewals are submitted on time and are complete (per 40 CFR 122.21), RB8 must not

administratively extend expiring permits. EPA notes that this issue may be of State-wide concern.

3. Future reissued MS4 permits must address whether additional controls are necessary for exfiltration from the sanitary sewer system into the MS4.
4. During the period prior to adoption and implementation of TMDLs for 303(d) listed waters, RB8 should develop a permitting process which ensures consistent establishment of WQBELs for discharges found to contain pollutants causing or contributing to non-attainment in a 303(d) listed receiving water body. Any such 303(d) permitting process for priority toxic pollutants developed by RB8 should include implementation procedures for priority toxic pollutants contained in the SIP. EPA notes that this issue may be of State-wide concern.

Other Suggestions

1. The NPDES permitting units should continue to attend relevant training courses/national technical meetings to continue updating and broadening their permitting expertise. The State Board has recently provided several valuable trainings which were well attended.
2. RB8 should update procedures to ensure consistent implementation of the narrative toxicity objective when establishing WQBELs for acute toxicity.
3. Future reissued MS4 permits should include requirements to address failing septic systems as a potential source in pollutants.
4. RB8 should consider adding numeric requirements for the number of industrial storm water inspections which must be conducted by MS4 permittees.

COMPLIANCE

EPA Evaluation Procedures

Prior to the RB8 office visit, EPA reviewed data in EPA's Permits Compliance System (PCS) including information about inspection coverage, Quarterly Non-Compliance Reports (QNCRs) submitted by RB8 from January 1997 to December 1999, and inspection reports for the same period.

Evaluation activities at the RB8 office included interviews with RB8 managers and staff in the Storm Water, Dairies/Chino Basin, and Surveillance and Enforcement Units, review of RB8 files, and review of compliance information obtained from RB8 data bases. See also the separate sections of this report on pretreatment, storm water, and CAFO compliance programs, below.

Compliance Tracking – Procedures

RB8 staff manually review Discharge Monitoring Reports (DMRs - monthly submittals from majors and monthly or quarterly submittals from minors), storm water permittee annual reports, animal feeding operations' annual reports, and pretreatment annual reports. Most of the DMR review is done by a single staff person who scans the DMRs for violations and other significant information. The DMR reviewer will then note violations and other significant comments in the Surveillance and Enforcement Monitoring System (SAEMS), a data base created by RB8 to provide an easy reference for RB8 compliance and enforcement staff. Permittees are required to report discharge information using EPA's DMR form. In addition to using the EPA DMR form, dischargers may also submit discharge data in a format of their own design. All of the DMR data is also entered into the State's new System for Water Information Management (SWIM) data base. Since July 1999, RB8 has also been entering violations and enforcement information in the System for Information on Non-Compliance (SINC) data base developed by the State Water Resources Control Board. The California Regional Boards do not operate EPA's PCS, so EPA is responsible for entering DMR data into PCS. However, due to resource shortages, EPA is not able to prepare preprinted DMRs and enter DMR data for all major permittees in California, a national requirement. In FY 2000, EPA is only able to enter DMR data in PCS for 8 of the 17 major dischargers in RB8.

California's Administrative Procedures Manual (APM) calls for a 30 day turn-around on review of DMRs. RB8 acknowledged that they are not always able to complete timely review of the DMRs. However, they generally review DMRs within 45 days and reviews never take more than 60 days. Review of storm water and CAFO annual reports is described below in their respective sections of this report.

Each quarter, RB8's Surveillance and Enforcement Unit manually prepares the QNCR for major NPDES permittees. RB8 prepares the QNCR based on review of information in SAEMS, and quarterly canvassing of RB8 compliance and enforcement staff for information on permittee violations and RB8 enforcement actions. A draft QNCR is then submitted to EPA Region 9 for review and development of the final QNCR. In the course of developing the final QNCR, EPA comments or corrections to the draft QNCR are provided to and discussed with RB8 staff. A review

of draft QNCRs for the last three years revealed that RB8 is timely and generally complete and accurate in preparation of the QNCRs. However, EPA must frequently make minor corrections to the draft QNCR submitted by RB8.

RB8 maintains files on each of their permitted facilities. Files contain discharge monitoring reports, inspection reports, enforcement actions, and all other correspondence related to the facility. The files were found to be well organized and complete.

Compliance Tracking – Conclusions

Generally, the RB8 compliance tracking procedures are satisfactory. DMR review, while not always meeting the 30 day standard, is conducted in a fairly timely manner. RB8 has developed a practical system (SAEMS) for tracking permit violations, and the new SINC and SWIM systems should further enhance RB8's ability to track violations.

RB8 does a timely and thorough job preparing the QNCR, though there continues to be minor corrections needed on most of them. In order to improve the quality of QNCRs, RB8 should either review the QNCR rules and guidelines or take QNCR training. EPA Region 9 is developing materials that can be used for training. In addition, manual DMR data entry and QNCR development creates a burdensome workload for both EPA and RB8. The State should continue to enhance their State-wide data systems to improve the efficiency of DMR review and identification and tracking of violations. Ultimately, the State should develop a system that allows for automated development of the QNCRs.

Inspections – Procedures

The Surveillance and Enforcement Unit is responsible for inspections of the facilities holding individual NPDES permits including POTWs and industries. (Inspections of the storm water permittees and the animal feeding operations, which are handled by the Storm Water and Dairy Units, are described below in their respective sections of this report.) The Surveillance and Enforcement Unit has four NPDES inspectors and one pretreatment inspector. As part of the recent reorganization at RB8, some of the more experienced NPDES inspectors were transferred out of the Surveillance and Enforcement Unit. Now the Unit has only one inspector with significant NPDES inspection experience. The Unit manager plans to take advantage of the new inspector training program developed by the State Board as one of the ways to bring his new inspectors up to speed.

The Surveillance and Enforcement Unit normally plans to inspect each of the 17 major permittees and 20% of the 43 minor permittees annually. A review of inspection data in PCS reveals that, in the last 3 years, RB8 has fallen short of the goal for majors inspections but exceeded the target for inspections of minor facilities. While several major facilities were not inspected at all during each of these years, others received multiple inspections. About half of the majors inspections are sampling inspections and half are compliance evaluation inspections. RB8 indicated that they plan to increase the number of sampling inspections such that extensive sampling will be the norm for their annual inspections of major permittees and grab samples will be collected during

most inspections of minor permittees. Inspection coverage is summarized below.

Number and (Percentage) of Facilities Inspected Annually			
	July '96 - June '97	July '97 - June '98	July '98 - June '99
Majors (17 facilities)	10 (59%)	13 (76%)	13 (76%)
Minors (43 facilities)	22 (51%)	23 (53%)	32 (74%)

There were no routine inspections of the City of Colton POTW and the City of San Bernardino POTW during the three year period examined. RB8 explained that these facilities do not discharge directly because their effluent is transferred to the Colton/San Bernardino RIX plant for final treatment before discharge. The City of Corona was not inspected in '96/'97 or '97/'98. Eastern MWD, which only rarely discharges, was not inspected in '96/'97 or '98/'99. Other major facilities were not inspected during years when they were not in operation.

On average, inspectors will take one full day for a facility inspection and two or more days for inspections of the larger major permittees. RB8 has no standard procedure for the type of notebook used for field inspection notes, and notes are typically taken on loose leaf paper. Copies of inspection notes are placed in the facility file. During the office visit at RB8, EPA interviewed inspection staff about their typical procedures for preparing and conducting compliance evaluation inspections. Inspection procedures were found to be very thorough. However, the inspector interviewed noted a few areas that could be improved. The NPDES inspectors do not have a checklist form to guide their inspections, and the inspector thought a checklist would be useful. The inspector also expressed a need to have more technical manuals available to RB8 inspectors as well as more technical training. As noted above, the State Water Resources Control Board has developed an inspector training curriculum which should satisfy the needs expressed by the RB8 inspector.

RB8 inspectors prepare written reports of each of their inspections, and these reports are placed in the facility file. Reports consist of the State's standard two page inspection report form plus accompanying narrative written by the inspector. A spot check of NPDES inspection reports revealed that they adequately address all elements of a compliance evaluation inspection and that the narrative section, which can range from one paragraph to multiple pages, provides valuable supplemental information on inspection findings. The Surveillance and Enforcement Unit manager has directed his inspectors to always include a substantial narrative write-up in each of their inspection reports. Normally, inspection reports are not sent to the permittee. Required follow-up is sometimes addressed in a separate letter from the Regional Board (e.g., a Notice to Comply or Notice of Violation) or in a formal enforcement action.

As noted above, more than half of RB8's major facility inspections and many of the minor facility inspections are sampling inspections. For the major facility inspections, RB8 will typically analyze samples for all parameters limited in the NPDES permit. However, because of staffing and equipment limitations, RB8 will typically obtain their own sample as a split from the permittees sampling equipment rather than independently collecting their own sample. RB8 explained that to

collect their own sample requires two RB staff people for two days. In addition, RB8 has had trouble keeping their samplers adequately iced over the 24 hour sample collection period. Because RB8 inspectors rely on a split from the permittee's sampler, their inspections include a thorough examination of the permittee's sample collection practices.

One MOA and Section 106 Workplan requirement that is not being met for inspections is the requirement to submit to EPA copies of all major NPDES permittee inspection reports. This needs to be corrected.

Inspections – Conclusions

RB8 falls short of their obligation to inspect each major facility annually but they exceed the required 20% inspection coverage for minor permittees. RB8 should ensure that each major facility is inspected at least once annually. A large percentage of the RB8 inspections are sampling inspections.

RB8 follows acceptable inspection protocols and their NPDES inspection reports are well prepared and adequately cover all of the elements of a routine compliance evaluation inspection. RB8 does not have an established protocol dictating a format for their inspector field notebooks. EPA suggests the use of bound notebooks for inspection field notes is needed because these are more suitable as evidence in enforcement cases.

Most of the inspectors in the Surveillance and Enforcement Unit are inexperienced, and both staff and managers expressed a need for both in-house and formal training of their new inspectors. RB8 plans to send their inspectors to the newly established State inspector training courses. RB8 should also seek other opportunities for technical training for their inspectors.

CONCLUSIONS SUMMARY--COMPLIANCE

Strengths

1. DMR review time is generally timely.
2. Tracking of DMR violations on RB8's SEAMS data base and the new State-wide databases is satisfactory.
3. RB8 exceeds the performance standard for inspection coverage of minor permittees.
4. Sampling inspections are conducted on more than half of the major facility inspections and at many of the minor facilities.
5. Inspection procedures are thorough. For sampling inspections, the RB runs analyses for all parameters limited in the permit.
6. Reports for most inspections of major NPDES permittees are well written and thorough.
7. Facility files are well organized and complete

Required Changes - State-Wide Issues

1. The State Water Resources Control Board needs to enhance their data bases to allow for more efficient tracking of permit violations, storage of all DMR data in a form compatible with EPA's PCS, and automated development of QNCRs.

Required Changes - RB8

1. RB8 must inspect each of their major NPDES permittees at least once annually.
2. Inspector's field notes should be kept in bound notebooks.
3. RB8 needs to consistently send EPA Region 9 copies of major NPDES permittee inspection reports.

Other Suggestions

1. EPA must make frequent minor edits to the QNCRs prepared by RB8. EPA suggests that RB8 staff review the QNCR procedures or take QNCR training.
1. EPA suggests that the RB send copies of their inspection reports to the inspected facilities except on the occasions when this would compromise RB enforcement.
2. RB8 should ensure that new inspectors receive the training they need.

PRETREATMENT

EPA Evaluation Procedures

The Pretreatment Section of this report is based on recent EPA inspections of a number of municipal pretreatment programs in RB8, plus interviews with RB8 managers during and subsequent to the April 2000 program review site visit.

In 1998, EPA conducted an in depth Pretreatment Performance Evaluation of the Orange County Sanitation District (OCSD) Pretreatment Program. This evaluation included an examination of the Santa Ana Watershed Project Authority (SAWPA) brine line which collects industrial waste in Riverside County for conveyance to the OCSD treatment plants. In 1998 and 1999, EPA conducted Pretreatment Performance Evaluations of the Corona and Western Riverside Pretreatment Programs. The Pretreatment Performance Evaluations included evaluations of industrial waste regulation in several smaller cities that are served by the POTWs or the SAWPA brine line, including Home Gardens, Norco, Jurupa, and Rubideaux. Related to these Pretreatment Performance Evaluations, EPA also inspected and took enforcement actions against a number of industrial users in the SAWPA, Corona, and Western Riverside systems.

Pretreatment Staffing and Activities

The Surveillance and Enforcement Unit at RB8 is responsible for implementing all aspects of the Pretreatment Program including program approvals, compliance evaluations, and enforcement. The Unit Manager and, since early 2000, one staff person are assigned to these pretreatment responsibilities. Prior to the staff assignment earlier this year, the Unit Manager carried sole responsibility for the RB8 pretreatment program.

Between 1996 and 2000, RB8 has generally met their annual Section 106 workplan commitments for Pretreatment Compliance Inspections (PCIs), conducting between 4 and 6 PCIs annually, with an increase to 7 PCIs in 2000. However, this number of PCIs represents only about 25% coverage of what was the universe of 20 pretreatment programs. Since the program review site visit, EPA and RB8 agreed to adjust the inventory of formally approved pretreatment programs to 10, with each of these 10 programs being associated with one of the major POTW NPDES permittees. Eliminated from the inventory were 10 programs run by smaller cities that convey their wastewater to larger POTWs with approved pretreatment programs. In the 106 grant workplan for fiscal year 2001, RB8 agreed to a substantial increase in pretreatment activity with a commitment to conduct PCIs at 100% of the approved programs annually (10 PCIs). RB8 also agreed to conduct the more in-depth Pretreatment Compliance Audits (PCAs) at the approved programs in the year preceding reissuance of their NPDES permit.

The permittees with approved pretreatment programs in RB8 are¹⁰:

City of Colton	City of Redlands
City of Corona	City of Rialto
Inland Empire Utilities Agency	City of Riverside
Irvine Ranch WD	City of San Bernardino
Orange County Sanitation District	Western Riverside County RWA (not yet formally approved)

A number of these programs rely on smaller cities within their service area to administer their own industrial waste control programs. However, the NPDES permits for each of the approved programs listed above stipulate that they are responsible for implementing or overseeing the pretreatment program throughout their entire service area.

EPA's recent Pretreatment Performance Evaluations revealed that some of the small city industrial waste control programs (subsidiaries to the larger approved programs) did not have sufficient staffing or pretreatment technical knowledge to adequately regulate their industrial users (IUs). Some of the cities did not impose national categorical standards or properly apply local limits on their industries. EPA also found a number of instances where the smaller control programs had failed to enforce against IUs with chronic violations of the national categorical standards.

EPA and RB8 now agree that the best approach for dealing with this situation is for RB8 to place the onus on the approved pretreatment programs to comply with their NPDES permits and ensure that the pretreatment program is properly implemented throughout their service area. Some of the "umbrella pretreatment programs" have interjurisdictional agreements with their contributing cities that give them oversight of the small city control programs and independent authority to directly regulate IUs in the member cities if necessary.

Similarly, EPA's Pretreatment Performance Evaluations concluded that there is inadequate regulation of industrial waste discharges to the Santa Ana Watershed Project Authority (SAWPA) brine line. The brine line, administered by SAWPA, collects industrial waste from a variety of sources in Riverside County and conveys that waste to the OCSD collection system for treatment at the OCSD wastewater treatment plants. EPA found that industries discharging to the brine line were not regulated in accordance with EPA's national standards for categorical industries. In addition, OCSD does not have the authority to impose their local limits on industry discharging to the SAWPA brine line. Local limits are designed to protect the OCSD treatment plants and guard against pass-through of pollutants. SAWPA does not have an approved pretreatment program and OCSD does not have adequate legal authority to extend their pretreatment program requirements to industrial dischargers to the brine line. When the OCSD NPDES permit is reissued, EPA and RB8

¹⁰ The Eastern Municipal Water District pretreatment program overlaps Regional Boards 8 and 9. RB9 has lead responsibility for oversight of the EMWD program since all of their CIUs are in RB9.

should ensure that the permit requires OCSD and/or SAWPA to implement an adequate pretreatment program for the brine line.

Finally, EPA discussed with RB8 a pretreatment issue of State-wide concern regarding categorical industrial users that have located in cities that do not have approved pretreatment programs. Where this occurs it may be necessary for the State to directly regulate or in some way address those industrial users. The RB8 Surveillance and Enforcement Unit Chief explained that they conducted a survey and found no categorical industrial users located outside the jurisdictions of the approved pretreatment programs in RB8.

CONCLUSIONS SUMMARY--PRETREATMENT

General Conclusions

EPA is concerned that some of the smaller, subsidiary industrial waste control programs in RB8 are not adequately regulating their industrial users. Proper regulation of the industrial users is important not only to protect the POTWs but also to guard against pass-through of pollutants, particularly salts and nutrients which are of primary concern in RB8. Additional compliance oversight by RB8, focused on the ten approved pretreatment programs, will help to ensure that all industrial users are properly regulated and in compliance. Generally, the POTW authorities are better equipped (adequate staffing and technical knowledge) to implement an effective pretreatment program than some of the smaller cities that are now taking responsibility for regulating their industrial users. RB8 has agreed to increase their pretreatment compliance evaluation efforts.

Strengths

1. RB8 has dedicated one staff person with pretreatment expertise as their lead for oversight of the municipal pretreatment programs.
2. RB8 searched for and did not find categorical industrial users outside of the approved programs.

Required Changes

1. RB8 has agreed to increase the number of annual pretreatment compliance inspections and program audits to meet national requirements. RB8 plans to conduct PCIs at 100% of the ten approved pretreatment programs annually and to conduct PCAs of each approved program once every five years, preferably in the year prior to permit reissuance.
2. RB8 needs to ensure proper regulation of industries discharging to the SAWPA brine line. EPA and RB8 will ensure that, upon reissuance, the OCSD NPDES permit requires implementation (by OCSD and/or SAWPA) of federal pretreatment requirements for industrial waste discharged to the brine line.
3. The RB8 annual compliance inspections of the ten approved pretreatment programs needs to include evaluations of the adequacy of pretreatment program implementation in the "subsidiary cities," ensuring that the "umbrella pretreatment programs" either directly

implement or provide adequate oversight of pretreatment programs throughout their service areas.

Other Suggestions

1. RB8 should continue to check for categorical industrial users in growing parts of RB8.

STORM WATER

EPA Evaluation Procedures

Evaluation of the RB8 storm water compliance and enforcement program consisted of:

- review of RB8 data base listings of inspections and enforcement actions,
- review of selected inspection reports and enforcement case documents, and
- interviews with RB8 managers.

Storm Water Compliance and Enforcement Staffing

The Storm Water Unit at RB8 is responsible for storm water permitting, compliance, inspections, and enforcement. At the time of the review, the Storm Water Unit had one Unit Manager, 4 full time permanent staff, and one vacancy. In addition, the Unit has three student employees that help with the storm water database, routine letters, and assisting permanent staff with preparations for inspections. These levels were an increase over previous storm water staffing. Since the time of this review, new State funding has been approved for a significant increase in additional staff in the storm water program throughout the State, and in particular in Southern California Regional Boards. As of November 1, 2000, RB8 had 10 staff in the storm water program and expects to hire as many as 8 more staff for storm water in the coming year.

Storm Water Compliance and Enforcement Activities

In RB8, storm water discharges are regulated under the following permits:

1. Orange County MS4, NPDES No. CAS618030: approx. 31 co-permittees
2. Riverside County MS4, NPDES No. CAS618033 approx. 10 - 15 co-permittees
3. San Bernardino County MS4, NPDES No. CAS618036: approx. 20 co-permittees
4. Cal Trans MS4, NPDES No. CA8000279
5. Individual storm water permits: 25 permittees
6. General permit for storm water discharges from industrial facilities, NPDES No. CAS000001: 1400 permittees
7. General permit for storm water discharges from construction sites, NPDES No. CAS000002: 1200 permittees

Storm water compliance reviews include the review of annual reports submitted by each of the MS4 permittees and each of the facilities covered under the general permits for industrial facilities and construction sites. The Unit Manager reports that his staff is able to review all of the annual reports submitted. RB8 follows-up with letters to permittees who fail to submit annual reports. Last year, 5 facilities were penalized for failing to submit annual reports after receiving the reminder letter from RB8. The State Water Resources Control Board is managing programs to search for storm water non-filers and to track receipt of notice of intent fees from facilities filing for coverage under the general permits. RB8 has also developed their own data base and associated

inspection report form to track inspection and compliance information on their general storm water permittees.

RB8 conducts annual compliance inspections of their MS4 permittees and inspects the individual storm water permittees twice annually. In addition, RB8 attends frequent coordination meetings hosted by the MS4 permittees. RB8 has developed a protocol for in-depth audits of their MS4 permittees. Their goal is to conduct comprehensive audits of each MS4 permittee, including each of the co-permittees, once every 5 years. The Unit Manager acknowledged that they are a little behind schedule on achieving this audit goal. Over the last two years, RB8 has audited 30% of the MS4 co-permittees.

RB8 has established an idealized goal of conducting annual compliance inspections at:

1. 20% of the facilities subject to the general storm water permit for industries (280 inspections/year), and
2. 100% of the construction sites subject to the general permit (1200 inspections/year).

More realistically, RB8 has committed to the State Water Resources Control Board to conduct 400 storm water inspections annually. As a subset of these goals and commitments, RB8 plans, and has been able to, inspect:

1. all permittees filing notices of termination (NOT) of coverage under the general storm water permits,
2. all storm water facilities that are the subject of complaints, and
3. all facilities filing notices of no exposure (NONE).

Due to staffing shortages, RB8 has not been able to approach their ideal goals for conducting compliance inspections at the industrial and construction general permittees, but they should meet their commitment to the SWRCB. With the additional staff added this year, the Storm Water Unit has been able to accomplish their top priority of inspecting NOTs and NONEs, and they are starting to conduct more routine compliance inspections at construction sites and industries. This shift is reflected in the data provided by RB8 for storm water general permittee inspections in the first 4 months of 2000.

RB8 Inspections of Storm Water General permittees - Industrial and Construction						
Month, 2000	Total (construc- tion)	NOTs	Complaint Response	Enforcement Follow-up	Compliance	Other
January	16 (9)	15	0	1	0	0
February	70 (63)	55	6	0	4	5
March	83 (81)	71	1	2	2	7
April	90 (67)	55	0	0	32	3
4 Month Total	259 (220)	196	7	3	38	15

EPA also reviewed data provided by RB8 on their storm water enforcement cases taken since 1997. During that time, RB8 took 51 formal enforcement actions (all Administrative Civil Liability Complaints (ACLCs)) against storm water permittees. All of these ACLCs against industrial facilities subject to the general storm water permit were for failure to submit their annual reports. The one case against a construction site was for failure to have their Storm Water Pollution Prevention Plan (SWPPP) on site. The six ACLCs against MS4s include two for failure to submit an annual report, two for isolated spills to storm drains, and one for failure to implement the Drainage Area Management Plan. This data is summarized in the chart below.

RB8 STORM WATER ENFORCEMENT - ACLC CASES			
Year	General Industrial	General Construction	MS4
1997	12	0	0
1998	16	0	2
1999	11	1	0
2000	5	0	4
TOTAL (1/97 - 4/00)	44	1	6

Overall, RB8's storm water compliance and enforcement priorities have been focused on evaluation of the NOTs and NONEs and enforcement against facilities who fail to submit their annual reports. The Storm Water Unit is also working to identify the cause of recent contamination and closures of Huntington Beach. RB8 issued information gathering letters (13,267 letters) to several Orange County MS4 co-permittees asking for investigations of possible illicit connections or spills that may be responsible for the beach contamination. RB8 has also considered, but not yet

established, sector priorities for targeting their storm water compliance and enforcement efforts among industrial storm water permittees.

In the area of compliance assistance, the Unit Manager noted that his staff participates in frequent coordinating meetings with the MS4 permittees and seminars with industry associations. In one of their storm water enforcement actions, RB8 required the defendant to work with the Building Industry Association to establish a storm water training seminar for the construction industry.

CONCLUSIONS SUMMARY--STORM WATER

General Conclusions

In the past, RB8 has had insufficient staff to fully implement their storm water compliance and enforcement program. RB8 has done a good job ensuring that the regulated facilities comply with reporting requirements of the storm water permits. Over the last 3½ years, they have taken 44 enforcement actions against industrial facilities for failure to submit required annual reports. RB8 has also initiated a good program of auditing MS4 permittees, but has fallen short in maintaining their targeted audit frequency. RB8 has also done a good job conducting field inspections at construction sites to verify notices of termination. NOT inspections, however, do not provide an assessment of how well industrial or construction facilities have implemented BMPs and SWPPPs, the central elements of compliance with storm water general permits. RB8 has only recently (as of February 2000) initiated enforcement cases for inadequate BMPs or SWPPPs or failure to implement SWPPPs. EPA's own investigations throughout Region 9 have found high rates of noncompliance with storm water requirements at many facilities. With the substantial increase in storm water staff, RB8 is beginning to spend more time on field investigations of BMPs and SWPPP implementation at industrial facilities and construction sites, and should be able to meet their storm water inspection goals. It is important that RB8 continue to expand compliance inspection efforts at both industrial and construction sites and that appropriate enforcement actions be taken to address compliance issues. Those enforcement actions should include appropriate penalties for significant noncompliance and the use of compliance orders. In the area of MS4 compliance, RB8 has initiated a program to conduct in-depth audits of each of the permittees and their co-permittees.

Strengths

1. RB8 is substantially increasing staffing in the storm water program to 18 staff this fiscal year, up from only a couple of staff at the start of last year, and will be able to dramatically increase compliance inspections to evaluate BMP and SWPPP compliance.
2. RB8 ensures that all facilities subject to the general storm water permits submit their annual reports, and does a good job reviewing these reports. Also, since 1997, RB8 has issued 44 penalty orders against industrial facilities for failure to submit their annual reports.
3. RB8 is doing a good job of field verification of Notices of Termination of coverage from facilities subject to the general storm water permits.
4. RB8 has initiated a program of in-depth audits of each of the MS4 programs including all

of the co-permittees.

Required Changes

1. RB8 needs to conduct significantly more field compliance evaluations to determine if permittees have developed adequate SWPPPs and are properly implementing BMPs.
2. RB8 needs to expand enforcement efforts at facilities who fail to implement adequate BMPs. (Recent data indicates that RB8 is doing this.)

Other Suggestions

1. Because of the large number of general storm water permittees, EPA encourages RB8 to establish geographic and/or industry sector priorities to help focus compliance and enforcement efforts.
2. More in-depth inspection reports should be prepared for cases that may lead to enforcement. RB8 should develop inspection check lists, issue on-site Notices to Comply, and provide copies of inspection reports to the inspected facilities.
3. RB8 should continue and complete their program of compliance audits of the MS4 programs.

ANIMAL FEEDING OPERATIONS (AFOs)

Evaluation Procedures

Evaluation of the RB8 AFO compliance and enforcement program consisted of:

- review of RB8 data base listings of inspections and enforcement actions,
- review of selected inspection reports and enforcement case documents, and
- interviews with RB8 managers.

AFOs Background and RB8 Staffing

There are about 300 dairies operating in RB8 with most located in the Chino Dairy Reserve along the Santa Ana River, making this one of the leading sources of wastewater in the Santa Ana Region. Discharges and land application of animal waste, containing high concentrations of salts, nitrate, and phosphorus, have caused serious contamination of the Chino Groundwater Basin, the San Jacinto River, and Lake Elsinore.

Earlier this year, RB8 created the Dairies/Chino Basin Unit to handle permitting, compliance, and enforcement activities related to the dairy facilities. At the time of the review, the Unit had a manager, five permanent staff on-board, and one vacancy. While most of the staff people are fairly junior, the creation of the Unit represents a significant increase of staff dedicated to dairies. Prior to the reorganization, there were only two staff people working on dairies in RB8. The new staff will be attending the SWRCB inspector training program and receiving on the job training from the experienced members of the Unit.

The dairies in RB8 are covered by a new general permit (Order No. 99-11, NPDES No. CAG018001). The new permit adds some notable new conditions including a requirement that all dairies develop and implement an Engineered Waste Management Plan (EWMP), a prohibition against manure disposal in the Santa Ana Region, stringent restrictions on the application of manure to crop lands in the Region, and a requirement to remove manure from the corrals within 180 days.

AFOs Compliance and Inspection Activities

Prior to creation of the RB8 Dairies/Chino Basin Unit and issuance of the new general permit, compliance and inspection activities focused on responding to complaints and reports of discharges during the rainy season, conducting routine compliance inspections (mostly during the dryer months), and reviewing annual reports as time allowed. RB8 managers explained that prior to the reorganization, they did not have sufficient staff to keep up with the annual report reviews and were not able to do as many routine compliance inspections as necessary. The requirements of the new general permit, while more protective, add a significant workload for the RB8 staff including:

- review and approval of EWMPs,
- inspections to verify implementation of EWMPs,
- review of manure hauling manifests and associated field verification, and

- spot inspections to verify reported "clean days".

Staff in the newly formed Dairy Unit are starting to carry out these new tasks.

Review and approval of the newly developed EWMPs is posing a significant workload for RB8. When the new general permit was issued in August 1999, RB8 realized that many dairies would not be able to immediately comply with the permit. A Cease and Desist Order (CDO) (No. 99-65 and subsequent amendments) was issued to place dairies on schedules to complete their EWMPs and comply with the manure hauling requirements. RB8 is in the process of developing new guidance for the EWMPs, and many dairies will be developing these plans for the first time. There will be a steep learning curve for both the dairies and RB8. In accordance with the CDO, RB8 expects to receive about 60 or 70 new EWMPs annually over the next few years. It is expected that after the EWMPs are developed, many dairies will realize that they must enlarge their wastewater holding ponds and implement numerous new operational and management practices. RB8 staff will need to spend time in the field evaluating implementation of the new EWMPs.

This year, RB8's work plan calls for 1.5 inspections of each dairy annually, or about 450 inspections. Prior to the reorganization, RB8 had only one or two dairy inspectors. These inspectors spent most of the rainy season in the field responding to complaints and reports of discharges. Routine compliance evaluation inspections were mostly conducted in the dry months. Between July 1, 1996, and April 2000, RB8 conducted 514 routine compliance evaluation (type B1) inspections at dairies, averaging about 137 dairy inspections annually (about 47% coverage of the 300 dairies in RB8). The number of complaint responses is not known since these inspections were not tracked in WDS.

The Dairies Unit manager estimates that 6 to 8 hours is required for each routine compliance inspection of a dairy (including preparation, field work, and report preparation). With the requirements of the new general permit, the routine inspections will take more time than in past years. Normally, RB8 will not collect samples when they inspect dairies, even if discharges are observed, because there are no effluent quality limits in the NPDES permit for dairies. Typical inspection reports include the State's standard 2-page Facilities Inspection Report form plus a very brief narrative section - typically one paragraph or less. At this time, RB8 does not have an inspection checklist to guide their inspections of dairies. However, the Unit Manager is considering development of an inspection checklist form that reflects the unique situations faced by dairies in RB8. Completed inspection reports are routed to the Unit Manager, then to staff for logging in WDS and filing. Typically, copies of inspection reports are not sent to the facility.

RB8 has a data base for tracking facility information about each of the dairies. However, the data base is not capable of tracking compliance and enforcement information. RB8 is developing a data base to track dairy compliance and enforcement information and should have the system operating later this year.

AFO Enforcement

Since 1997, RB8 has issued six enforcement actions against dairies. Five ACLC actions

were taken against dairies for deliberate discharges of wastewater. In three of these cases, substantial amounts of the assessed penalties were suspended when the dairies agreed to develop and implement an EWMP. In 1999, RB8 issued Cease and Desist Order 99-65 to nearly 200 dairies that were not able to comply with the newly issued general permit. The enforcement cases are listed below.

RB8 AFO ENFORCEMENT ACTIONS, 1997 - PRESENT				
Facility Name	Type of Action, Complaint No.	Date	Amount Assessed	Amount Collected
C. Echeverria & Sons Dairy	ACLC, 97-041	3/21/97	\$10,000	\$10,000
J. Ferreira Dairy	ACLC, 97-045	5/19/97	\$7,500	\$2,000 (\$5,500 suspended)
Jorritsma Dairy	ACLC, 97-044	5/19/97	\$7,500	\$750 (\$6,750 suspended)
Nederend Dairy	ACLC, 97-016	5/19/97	\$7,500	\$750 (\$6,750 suspended)
De Vries Dairy	ACLC, 99-021		\$25,000	\$25,000
various dairies not complying w/ new permit	CDO, 99-065 and subsequent amendments	8/20/99	N/A	N/A

RB8 managers explained that, in the past, their enforcement cases have generally been limited to the most egregious violators - dairies that discharged deliberately after repeated warnings and requests by RB8 to implement BMPs. In discussing these cases and the Board's general enforcement strategy, RB8 managers explained a number of challenges faced by the dairies which has tempered the Board's enforcement response. Chief among these challenges is the inundation of the dairy properties with storm water run-on from the urban areas up-gradient from the dairies. Other circumstances reported by RB8 include extreme density of cows (33 cows per acre) at many dairies, lack of crop land for spreading manure, the expenses associated with hauling manure, and the dairies inexperience with developing EWMPs. RB8 also noted that they did no enforcement during the winter of '97/'98 because the dairies were flooded by El Nino rains. Since then, RB8 managers noted that they have been involved in some long term investigations which have not yet yielded enforcement cases.

RB8 has a three part dairy regulatory strategy which is designed to address the circumstances described above plus other related issues. Part I of the strategy deals with ongoing impacts from the dairies and includes RB8's plans to require and oversee the implementation of manure tracking systems and EWMPs. RB8 is also developing guidance for the dairy industry on what is expected in the EWMPs and tracking systems. As noted above, the newly created Dairies Unit will be focusing much of their attention on these elements of the strategy. Part II of the strategy deals with

the long term degradation of the Chino Basin groundwater. The Board and other interested stakeholders (dairies, water purveyors, EPA, water resource management agencies, etc.) are working together on the Chino Basin Watershed Management Initiative and the Water Master's Optimum Basin Management Plan (OBMP). The Initiative and the OBMP will identify activities, policies, and programs to be implemented by the stakeholders for the restoration of the watershed. Finally, Part III of the Board's strategy addresses the surface water drainage problems in the Chino Dairy Preserve. The San Bernardino County Flood Control Department is developing and seeking funding for a series of drainage ditches and flood control facilities designed to relieve flooding problems at the dairies.

CONCLUSIONS SUMMARY--ANIMAL FEEDING OPERATIONS

General Conclusions

EPA recognizes that the problem of surface and groundwater contamination by the RB8 dairies is a complex, difficult situation. The environmental impacts and threats to water supplies are extremely serious, and all necessary measures must be taken to alleviate the impacts. Realizing that the problems cannot be solved quickly, EPA supports both short and long term remedies. In the short term, RB8 must take all necessary steps to ensure that each dairy is complying with the general permit. Short term activities should include development of EWMP guidance (near completion) and review of individual EWMPs and manure hauling manifests, along with increased compliance evaluation inspections and enforcement. In the long term, RB8 should continue to participate in the Chino Basin Watershed Initiative and take necessary steps to restore the quality of surface and groundwater in the Santa Ana Region. In the past, RB8 has not been able to dedicate adequate staff resources to dairies. In particular, RB8 had insufficient resources for dairy inspections and enforcement. Now with the newly created Dairies Unit and the increased staffing, RB8 should be able to effectively address the short and long term demands posed by dairy pollution in the Santa Ana Region.

While RB8 has described widespread noncompliance among the 300 dairies in the Santa Ana Region since 1997, RB8 has issued only five ACLCs against dairies, limiting their enforcement to the most egregious violators while generally collecting low penalty amounts.

Strengths

1. Earlier this year, RB8 created a new Dairies/Chino Basin Unit dedicated to dairies, and significantly increased the staffing assigned to work in the Unit.
2. RB8 issued a new general permit for dairies (Order No. 99-11) which imposes more stringent requirements on dairies including development of EWMPs and the prohibition on manure disposal.
3. RB8 has developed and retains significant expertise on dairies.
4. RB8 has cooperated with and assisted EPA on a number of in-depth compliance investigations at dairies.

Required Changes

1. RB8 must conduct timely compliance evaluations of dairy annual reports and EWMPs. RB8 must also conduct sufficient numbers of compliance evaluation inspections at dairies (RB8 committed to approximately 450 inspections per year).
2. There is an insufficient number of enforcement actions by RB8 given the pattern of noncompliance at dairies. RB8 needs to take appropriate formal enforcement actions against all dairies with significant violations, not just the most egregious, recalcitrant violators.

Other Suggestions

1. EPA suggests expanding the narrative sections of the dairy inspection reports, particularly for violating facilities. We also suggest that copies of reports be sent to the inspected facilities.
2. RB8 should complete their effort to develop a compliance data base for dairies.
3. RB8 should continue their ongoing efforts to train new staff in the Dairies Unit.
4. RB8 should develop a dairy inspection checklist to guide their inspectors.
5. RB8 should continue their efforts to ensure compliance with the new requirements of the Dairy General Permit including development of EWMP guidance and review of EWMPs, manure hauling manifests, and annual reports.

ENFORCEMENT

Evaluation Procedures

Evaluation of the RB8 enforcement program consisted of:

- review of the Quarterly Non-Compliance Reports for major NPDES dischargers, January 1997 to December 1999,
- review of RB8 data base listings of inspections and enforcement actions,
- review of selected enforcement case documents, and
- interviews with RB8 managers.

NPDES enforcement actions can be initiated from three different Units at RB8: the Storm Water Unit, the Dairy Unit, and the Surveillance and Enforcement Unit. The enforcement activities of the Storm Water and Dairy Units are described above. This section of the report describes the enforcement activities of the Surveillance and Enforcement Unit and evaluates the enforcement practices of all three Units.

Enforcement Staffing and Activities

The Surveillance and Enforcement Unit is responsible for compliance, inspections, and enforcement at major and minor NPDES permittees other than the storm water permittees or dairies. The Surveillance and Enforcement Unit is responsible for municipal sewage treatment plants, industrial dischargers, dry docks, and marinas. The Unit had one manager and six permanent staff at the time of the review. One of the staff is responsible for the pretreatment program and completion of the QNCR. A second staff person spends most of their time on compliance evaluation duties such as DMR reviews and maintenance of the compliance data bases.

RB8 also has a small Investigations and Enforcement Unit which was originally formed to provide oversight and assistance to, and ensure consistency among, the enforcement activities of the Storm Water, Dairies, and Surveillance and Enforcement Units. However, the Investigations and Enforcement Unit has been diverted from this original purpose, and now is spending most of their time supporting a small number of intensive enforcement investigations.

Enforcement Activities

Between January 1997 and the time of the review, RB8 took 20 formal enforcement actions initiated by the Surveillance and Enforcement Unit. These included five Clean-up and Abatement Orders (CAOs), eight Cease and Desist Orders (CDOs), and seven ACLCs. These cases, which are summarized in the chart below, were taken for a variety of violations including effluent limit violations, monitoring or reporting violations, and unauthorized discharges or spills.

ENFORCEMENT ACTIONS: SURVEILLANCE AND ENFORCEMENT UNIT			
	CAOs	CDOs	ACLCs
1997	N/A	N/A	Colton/San Bern. 97-021 Riverside 97-062
1998	Steelcase 98-089	Corona 98-008 YMCA 98-048 Rialto 98-110	East Valley WD 98-091 Eastern MWD 98-106
1999	Sunset Aquatic 99-034 Alumax 99-038 Silverado 99-059 MWD of So. Cal. 99-061	Yucaipa 99-047 Yucaipa 99-066 Inland Empire #1 99-077 Corona STP#1 99-077	Western Riverside 99-052 Orange Co. SD 99-058 Irvine Company 99-090
2000	N/A	Rialto 00-024	N/A

The total number of NPDES enforcement actions taken by the three enforcement units at RB8 (Storm Water, Dairies, and Surveillance and Enforcement) are summarized below.

NUMBER OF NPDES ENFORCEMENT ACTIONS: RB8 TOTAL			
	CAOs	CDOs	ACLCs
1997	2	0	18
1998	1	3	20
1999	5	4	15
2000	0	1	9
TOTAL	8	8	62

Nearly all of the Cease and Desist Orders were issued by the Surveillance and Enforcement Unit against municipal sewage treatment plants requiring compliance with effluent limits. Most of the ACLCs were issued by the Storm Water Unit against industrial facilities for failure to submit storm water annual reports. Several ACLCs were also issued against dairies and other facilities for spills and unauthorized discharges.

Quarterly Non-Compliance Reports (QNCRs) for the period January 1997 through December 1999 were reviewed to determine if RB8 took timely and appropriate enforcement against major NPDES facilities who were in significant non-compliance with their NPDES permits. Most of the major municipal sewage treatment plants in RB8 have been under a long-term series of Cease and Desist Orders requiring expansion of treatment capacity and compliance with effluent limits for Total Inorganic Nitrogen (TIN) and Total Dissolved Solids (TDS). During the time period reviewed, these CDOs were issued in a timely manner. However, on numerous occasions, RB8 has issued new

CDOs that modify and extend the deadlines imposed in earlier CDOs. In some instances, the time extensions were justified in order to allow more time to study the problems and devise regional solutions. However, in a number of other cases, the CDOs were modified because the discharger was not pursuing compliance options in a timely manner and had fallen behind on their compliance schedules. For example, Corona was issued CDO 96-008 requiring compliance with the TIN limits. CDO 98-008 was issued to extend the TIN compliance deadline and to establish a compliance deadline of January 2000 for TDS. At the time of the review, Corona had installed TIN treatment but had not yet complied with the TDS limits. In another case, CDO 96-35 was issued against the Yucaipa Valley Water District (Yucaipa) requiring compliance with the TIN limits by April 1999. When Yucaipa was unable to meet the 1999 deadline, RB8 issued CDO 99-47 which extended the compliance deadline to June 2001. There was no instance where the RB8 escalated the enforcement remedy for a POTW who failed to comply with a CDO schedule.

Review of the QNCRs revealed other instances where significant violations continued for a number of quarters before RB8 took enforcement action. For example, Yucaipa began violating their coliform and chlorine residual effluent limits in 1996. RB8 issued ACLC 96-086, penalizing Yucaipa \$30,000 for failure to report discharges of inadequately disinfected wastewater. RB8 also issued CDO 96-087 requiring Yucaipa to fix their disinfection system and comply with the coliform and chlorine limits by June 1997. Yucaipa took some remedial steps but continued to violate their coliform and chlorine limits off-and-on through 1999. After many months of violations, in November 1999, RB8 finally issued CDO 99-66 which extended the coliform compliance deadline to September 2000. There was no ACLC penalty issued for Yucaipa's continued violations of the coliform and chlorine limits. In addition, in 1998, Yucaipa was in significant non-compliance with their turbidity limits for two quarters and no enforcement action was taken.

Other examples of lack of timely action against facilities in significant non-compliance (SNC) include:

Colton/San Bernardino Regional Plant - SNC for pretreatment, inadequate capacity, and narrative standards for 7 quarters (Jan. '97 - Dec. '98), no enforcement.

City of Corona WWTP - SNC for TDS for 3 quarters (July '97 - June '98), CDO 98-008 issued in April '98. SNC for turbidity for 2 quarters (July '99 - March '00), no enforcement.

City of Rialto WWTP - SNC for TDS for 3 quarters (July '97 - June '98), CDO 98-110 issued in November '98. SNC for coliform off-and-on for 7 quarters (July '97 - March '00), no enforcement.

Western Riverside County Regional Wastewater Authority - SNC for coliform 3 quarters (April '98 - March '99), ACLC 99-052 issued July '99. SNC for TDS and selenium for 2 quarters (July '99 - March '00), no formal enforcement (NOV issued Feb. '00).

Enforcement Action Case Studies

EPA reviewed a number of cases to assess RB8's approach for calculating and issuing penalty orders (ACLCs). Cases reviewed included:

- four ACLCs issued against dairies in 1997 (Echeverria 97-041, Nederend 97-016, Ferreira 97-045, and Joritsma 97-044),
- two ACLCs for failure to implement municipal storm water requirements (City of Beaumont 00-016, and City of Perris 00-030), and
- one ACLC for a spill from a storm water pumping station (Orange County 00-033).

In most of these cases, the ACLC document did not address all of the elements required in the Porter-Cologne Act for developing a penalty, including economic benefit, nature and gravity of the violation, prior history of violations, degree of culpability, and the ability of the discharger to pay the penalty. Generally some but not all of these elements were addressed in the ACLC. In other cases, such as the Perris ACLC and the Orange County ACLC, there was no discussion of the penalty elements in the ACLC or in the file. In addition, RB8 does not use a standard formula for assigning a penalty amount for the gravity of the violation, nor is a formula or model used for calculating economic benefit.

A review of these ACLCs also revealed that RB8 commonly suspends significant amounts of the assessed penalties in exchange for a commitment from the violator to implement measures which are required to achieve compliance with the permit. For example, in the Joritsma and Nederend cases, 90% of each penalty was suspended in exchange for commitments from the dairies to develop and implement Engineered Waste Management Plans. While these EWMPs were not specifically required in the old general permit, development of an EWMP is directly linked to achievement of compliance with the permit. In the Beaumont case, 50% of the \$30,000 penalty was suspended, and in the Perris case, 100% of the \$30,000 penalty was suspended. In both of these cases, the penalty was suspended in exchange for commitments to implement the Drainage Area Management Plan required by the municipal storm water permit.

CONCLUSIONS SUMMARY--ENFORCEMENT

General Conclusions

Between 1997 and April 2000, RB8 issued 62 ACLCs. In addition, RB8 has finally brought most of their major municipal treatment plants into compliance with the TIN and TDS limits. However, in numerous instances, RB8 did not take timely action against significant violators and did not escalate enforcement against recalcitrant violators. RB8 commonly suspends large portions of their assessed penalties in exchange for commitments from the violators to take steps necessary to achieve compliance. RB8 does not follow State penalty policies in calculating and collecting penalties.

Strengths

1. RB8 issued 78 formal enforcement actions between January 1997 and April 2000, including 62 ACLCs.
2. After many years, most of the POTWs in RB8 have now achieved compliance with their TIN and TDS effluent limits.

Required Changes - State-Wide Issues

1. In their ACLC cases, RB8 typically does not address all of the required elements for calculating penalties. RB8 must address each of the required penalty elements, consistent with State penalty policies.
2. Penalties should only be suspended for inability to pay or in exchange for supplemental environmental projects (SEPs) which go beyond what is required for compliance.

Required Changes - RB8

1. RB8 needs to take formal enforcement against facilities after they are in significant non-compliance for one quarter.
2. RB8 needs to escalate their enforcement response against facilities who fail to respond to CDOs.

Other Suggestions

1. EPA suggests that RB8 retain their Investigations and Enforcement Unit and provide adequate staffing to allow the Unit to return to their original oversight and assistance role. With enforcement being initiated in three separate Units, it would be helpful to have some oversight to ensure consistency and conformance with state policies and procedures.
2. SEPs should not reduce the cash penalty below the economic benefit realized by the violator.

APPENDIX A



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

February 28, 2000

Mr. John Norton, Chief
Compliance Assurance and Enforcement Unit
California State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Dear ~~Mr. Norton~~:

As we discussed during our meeting on January 5, 2000, enclosed is a progress report on the list of issues in the NPDES program which were identified during the EPA review of Regional Water Quality Control Boards 4, 5, and 9, and agreed upon by the State. Each issue statement on the enclosed report includes a summary of progress made since February 1999, when this list of NPDES program issues was agreed upon by the SWRCB and all the RWQCBs. Please distribute the enclosed status report to the appropriate individuals at the SWRCB and RWQCBs to ensure that they're aware of progress made to address these issues, and are taking the appropriate actions described in the enclosed progress report to resolve them.

Thank you for convening our meeting of January 5, 2000. It's clear that progress has been made in addressing these issues. It's also important to identify the status for each issue clearly prior to our resuming the EPA reviews of the NPDES program at other RWQCBs. If there are any questions on the enclosed information, please contact me at (415) 744-1817.

Sincerely,

A handwritten signature in cursive script, which appears to read "Mike Schulz", is written over the typed name.

Mike Schulz
Associate Director
Water Division

Enclosure

EPA's NPDES program reviews conducted in 1998 at the Regional Water Quality Control Boards (RWQCBs) in Los Angeles, San Diego, and Sacramento revealed issues applicable throughout the State of California. These issues were agreed upon by all nine RWQCBs, the State Water Resources Control Board (SWRCB), and EPA in January and February of 1999, and are listed below, along with the current status of each, as discussed between EPA and the SWRCB on January 5, 2000.

- The current lack of State-wide water quality standards for toxic pollutants, and the absence of a plan of implementation for establishing water quality based effluent limits for toxics and whole effluent toxicity, result in NPDES permit issuance problems at the RWQCBs.
 - ▶ Identified as an on-going problem, it was initially agreed that promulgation by EPA of the California Toxics Rule (CTR) and the State's adoption of the Implementation Policy (Phase 1 of the Inland Surface Waters Plan and the Enclosed Bays and Estuaries Plan) would address this issue for many toxic constituents. As of January 2000, EPA has not yet promulgated the CTR, and it's expected that promulgation may take until Spring of 2000. The State has scheduled a SWRCB meeting on March 2, 2000 regarding the State's proposed Implementation Policy.
 - ▶ As agreed upon between EPA and the State in January 1999, during the period before the CTR becomes final and the State Implementation Policy is adopted, RWQCBs should refer to EPA's national guidance, *Technical Support Document for Water Quality-Based Toxics Control (EPA/505/2-90-001, March 1991)*. This guidance is also summarized in *Guidance for NPDES Permit Issuance (EPA, Region 9, February 1994)*. RWQCBs were also to refer to good examples of fact sheets and permits that the SWRCB would make available via the internet (see discussion below). Making these examples available has been delayed by the SWRCB's development of the Implementation Policy and by defending issued permits that have been challenged. The SWRCB currently plans to make examples of fact sheets and permits available via the internet by late winter or early spring of this year.
 - ▶ EPA's national Permit Writers Training Course was given in San Francisco the week of March 22, 1999. This class provided detailed instructions on the development of water quality based effluent limits in NPDES permits, giving permit writers at the RWQCBs some guidance on how to write permits addressing these issues until the CTR and the State's Implementation Policy are completed. This class was conducted again this year during the week of January 24, 2000, in Riverside, attended by about 80 state staff.
 - ▶ Over this past year, the lack of a quorum at many RWQCBs has inhibited timely permit issuance.

- Adoption of NPDES permits containing compliance schedules for water quality based effluent limitations is not allowable, unless an authorizing provision is contained in the applicable water quality control plan.
 - ▶ In January 1999, EPA and the SWRCB agreed that this issue needed to be addressed in writing by the SWRCB. In December 1999, litigation on this issue arose regarding a permit in the Los Angeles RWQCB, and the proposed permit was vacated. The SWRCB is presently deliberating on how best to resolve this issue, and anticipates issuing something in writing to be sent to all the RWQCBs and to EPA.
- Permit fact sheets/statements of basis need to clearly establish that permits are consistent with applicable statutes, regulations, and policy (e.g., reasonable potential, antibacksliding, establishing mixing zones, determining dilution credits, etc.).
 - ▶ The recommended method for reasonable potential analysis is provided in EPA's national guidance, *Technical Support Document for Water Quality-Based Toxics Control (EPA/505/2-90-001, March 1991)*. This guidance is also summarized in *Guidance for NPDES Permit Issuance (EPA, Region 9, February 1994)*. Both documents are available to the RWQCBs and the SWRCB.
 - ▶ Good examples of fact sheets that defend permitting decisions should be provided at the upcoming EPA national Permit Writers Course in Riverside. See also the discussion above on Page 1.
- Appropriate receiving water limitations language, for which acceptable model language has been developed by EPA, the State Water Resources Control Board (SWRCB), and the California Storm Water Quality Task Force, needs to be included in all forthcoming municipal storm water permits.
 - ▶ Appropriate language, agreed upon as noted above, has been included by the State in storm water permits issued. A court ruling this past year stated that the Clean Water Act (CWA) itself does not require that permits for Municipal Separate Storm Sewer Systems (MS4s) include effluent limitations necessary to comply with water quality standards, but the permitting authority has flexibility to include requirements to meet standards in storm water permits.
 - ▶ At present, the State has a program in place to require MS4s to comply with standards. The Storm Water Quality Task Force has asked the SWRCB to revisit this issue.

- Copies of inspection reports of major permittees, as well as copies of responses from permittees about violation follow-up, must be sent by all RWQCBs to EPA, in accordance with the Memorandum of Agreement (MOA) between EPA and State of California.
 - The State agrees and is providing copies of these documents to EPA. The State is also considering electronic storage of all documents.
- Compliance review of Discharge Monitoring Reports (DMRs) is often not timely, especially for minors.
 - This issue was referred to California's NPDES Roundtable for discussion and resolution. Last year, it was anticipated that the SWRCB would develop procedures by May 1999 for use by all RWQCBs. As of January 2000, a procedure for Self-Monitoring Report (SMR) review has been drafted by the SWRCB, along with a number of other procedures which are being updated and/or modified. The State has also deployed the SWIMS system, which tracks submission of SMRs to ensure that they're received in a timely manner. In addition, the System for Information on Non-Compliance (SINC) has been deployed by the State. RWQCBs are entering all violations as part of a massive State-wide effort to follow through on the requirements of the Migden legislation, which takes effect January 1, 2000, and requires enforcement action to be taken to follow-up on all instances of serious non-compliance.
- The Quarterly Non-Compliance Reports (QNCRs) submitted by the RWQCBs need improvement in quality and content.
 - The State's goal was that the SINC described above would do this automatically for the State, as the SINC identifies all non-compliance. However, as designed, SINC cannot sort by parameter and individual staff will still need to manually determine facilities to be listed and provide narrative for facilities in non-compliance. Thus, Jose Angel of the State and Bob Wills of EPA will still need to provide procedures and training for the RWQCBs on QNCR preparation. The State's long-term goal is to complete the QNCR electronically. This is also EPA's goal.
 - Though the QNCRs need improvement in quality and content, the compliance status of the regulated universe of California facilities is known via the two State-wide systems, SWIMS and SINC.

- Field presence/compliance assessment at NPDES major and minor facilities is not adequate. Issues include use of appropriate sampling methods, adequacy of field inspection notes, and depth of on-site review.
 - ▶ In January of 1999, it was expected that the SWRCB's Compliance Assurance and Enforcement Unit would develop procedures to address this issue by June 1999, with State-wide implementation thereafter. EPA was to assist the SWRCB in this effort.
 - ▶ A revision of the State's Administrative Procedures Manual is still pending, and a preliminary comprehensive checklist for conducting inspections has been completed by the State. This revised guidance defines different inspection types, correlating with the State's pricing factors for resources.
 - ▶ A significant hiring and training effort for field inspection staff at the RWQCBs is being undertaken by the State this year. The first of five State-wide training sessions for RWQCB staff on field inspections, lasting 8 days each, has been conducted. Overall, the State expects to train 850 field staff, with 35 staff having been trained in the initial session conducted to date.
 - ▶ The State's inspection projections for this year are markedly higher than in previous years. For example, the State projects to complete 1,800 NPDES facilities inspections this year, up from 1,100 last year; the State projects to complete 2,100 storm water inspections this year, a significant increase over the prior two years.
 - ▶ The State is establishing a new complaint tracking system, being installed on every SWRCB and RWQCB employee's desktop. This will allow State staff to call up a form to log complaints for purposes of effective citizen complaint tracking and management. Each RWQCB will have a complaint coordinator to ensure follow-up. The Sanitary Sewer Overflows (SSOs) version of this complaint tracking system is already formulated and implemented on a pilot basis, to be fully implemented in February 2000. Complaint tracking will be tied into SWIMS.
- A greater inspection presence in the storm water program for both industrial and construction sites needs to be established by all RWQCBs; this program element is significantly under funded State-wide.
 - ▶ In January 1999, the identification of non-filers was identified as a high priority, to be emphasized by the State.
 - ▶ AB 2019 provided that California agencies should cooperate with the SWRCB in implementing the storm water program. The California Employment Development Department (EDD) is cooperating, e.g., by providing information on auto dismantlers that the SWRCB can use to identify non-filers. The State has a \$5,000 penalty for non-filers of Notices of Intent (NOIs) in the storm water program.

- ▶ In January of 1999, the expected level of inspection presence for the storm water program needed to be defined, as well as procedures for targeting inspections (geographic or otherwise). The "floor" of a credible State-wide storm water compliance program needed to be defined. Cost factors for the storm water program are under development by the SWRCB, and a preliminary report on these factors is expected by April 2000. Additional resources have been provided for the State's storm water program this year; as discussed above, the projected number of storm water inspections this year is expected to increase to 2,100. Even with these new resources, however, the storm water program remains underfunded, not having yet reached a minimum critical mass. The regulated universe of facilities is estimated at 15,000 - the current estimate by the SWRCB is that \$100,000 yields 150 storm water inspections.
- Pretreatment program expertise, in general, needs to be strengthened State-wide. Industrial user regulation by the State is needed. Industrial user compliance problems, especially when the pretreatment authority is for whatever reason unable to exert authority over the industrial user, must be addressed by the State.
 - ▶ Instances where EPA identified water quality problems due to pretreatment noncompliance in 1998 needed to be addressed promptly by the State. The SWRCB believes that the predominant number of these noncompliance problems are located in RWQCB 5; the SWRCB will identify significant unregulated industrial users, and is willing to do inspections of these facilities as needed. EPA has initiated several enforcement actions to follow-up on some of these instances of non-compliance.
 - ▶ Pretreatment priority and work commitments needed to be addressed in the State's 1999-2000 Clean Water Act Section 106 workplan. EPA expects that appropriate priority will continue to be placed on the pretreatment program in the State's 2000-2001 workplan.
 - ▶ Sheila Vassey, SWRCB Counsel, issued a memorandum on April 21, 1999, to Jim Kassel of the SWRCB regarding industrial user enforcement authority, advising that the RWQCBs have authority to enforce directly against industrial users. The RWQCBs need to exercise this authority when appropriate.
 - ▶ Two staff have been identified at the SWRCB to serve as the State's experts on pretreatment. RWQCBs need to conduct pretreatment inspections as appropriate, and the SWRCB is supporting these efforts. RWQCBs realize they need to assign a single individual to pretreatment in order to develop the appropriate depth of expertise, and several RWQCBs have already done so, e.g., RWQCBs 4, 5, and 9.
- All RWQCB penalty actions need to follow EPA and State policies which call for recovery of economic benefit resulting from noncompliance.
 - ▶ The Migden bill which takes effect January 1, 2000, makes recovery of economic benefit mandatory in California for violations of permit requirements.